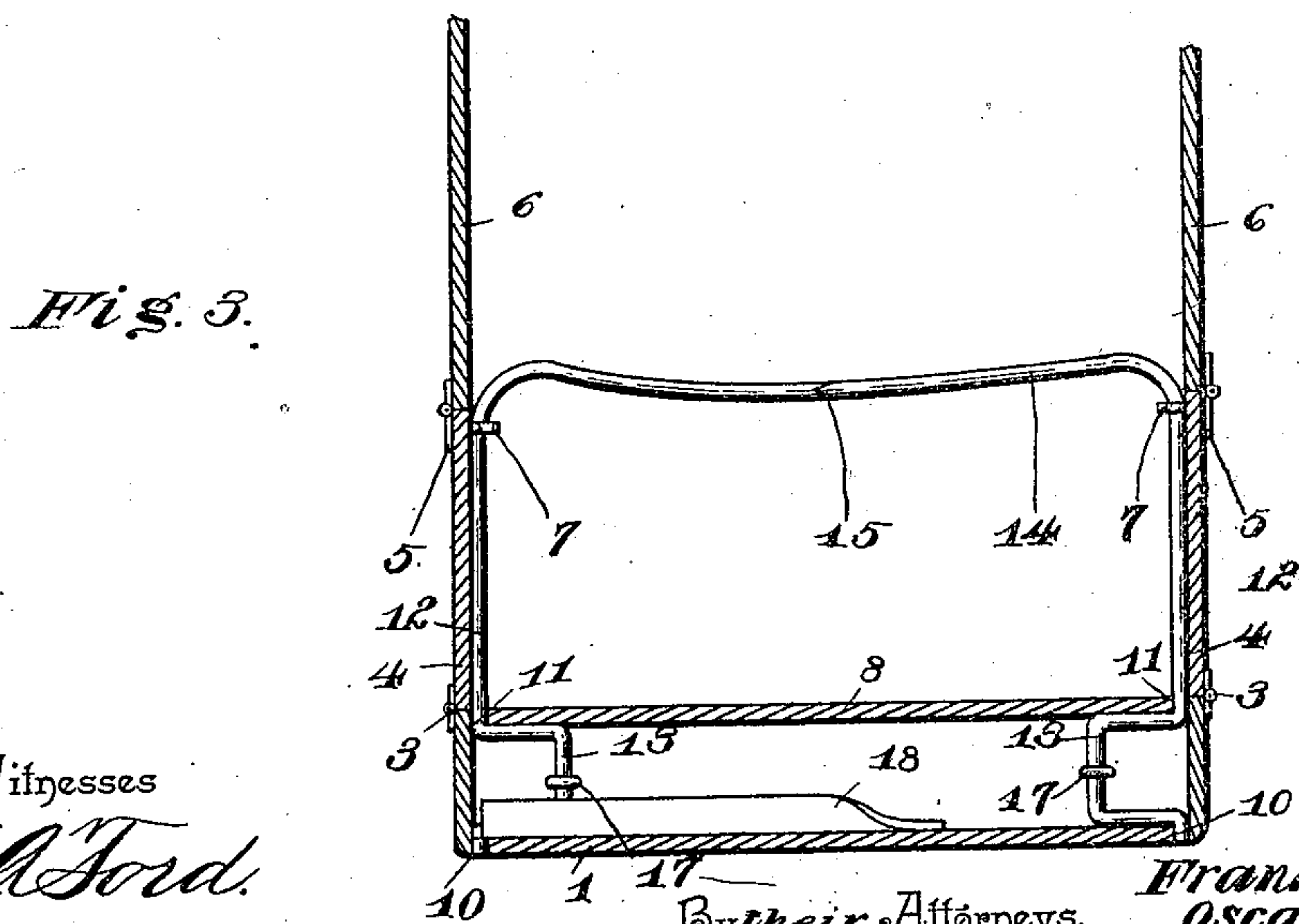
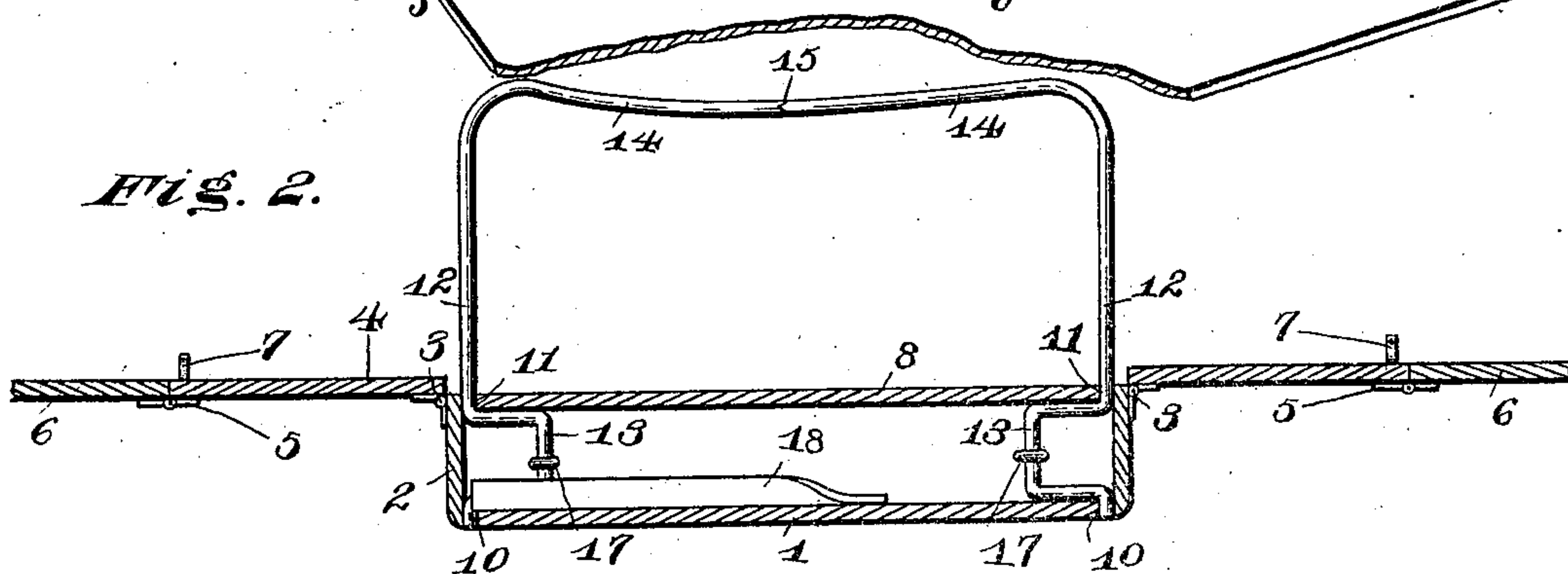
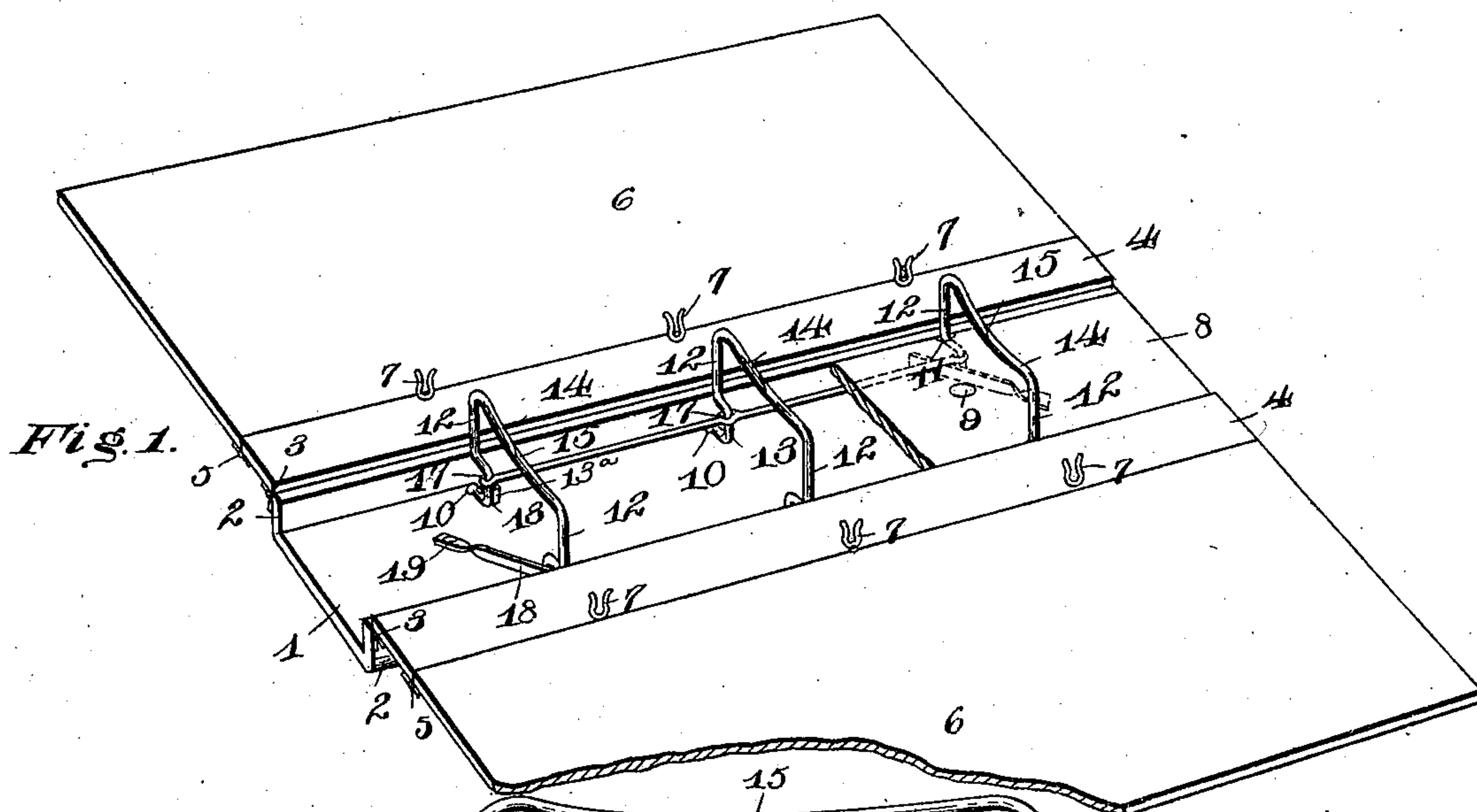


(No Model.)

F. D. HASTINGS & O. N. DURAND.
TEMPORARY BINDER.

No. 503,959.

Patented Aug. 29, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK D. HASTINGS AND OSCAR N. DURAND, OF CHAMPION, MICHIGAN.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 503,959, dated August 29, 1893.

Application filed March 27, 1893. Serial No. 467,860. (No model.)

To all whom it may concern:

Be it known that we, FRANK D. HASTINGS, a citizen of the United States, and OSCAR N. DURAND, a subject of the Queen of Great Britain, residing at Champion, in the county of Marquette and State of Michigan, have invented a new and useful Temporary Binder, of which the following is a specification.

Our invention relates to improvements in that class of inventions commonly known as temporary-binders, and has special reference, in this instance, to a book-frame constructed upon this principle and adapted for use as a freight and passenger book for holding railroad and other freight and tariff files, though it will be obvious the invention is applicable for holding in a temporary form any papers.

The objects of the invention are to provide a book so constructed and arranged as to permit of the ready introduction and removal therein and therefrom of loose sheets, principally passenger tariff and freight sheets or files, and to accomplish this without the displacement or necessity of removal of the other series of sheets contained therein.

With these main objects in view, the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a temporary binder embodying our invention, the parts being broken away. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a similar view to Fig. 2 the book being closed.

Like numerals of reference indicate like parts in all the figures of the drawings.

The back of the book may be formed of wood or any other suitable material, and consists of the base 1 and the surrounding end and side-walls 2, said back being of oblong shape as clearly shown. To the upper edges of the side walls 2 there are by means of flexible hinges 3 secured narrow cover-sections 4, which in turn have their front edges connected by flexible hinges 5 to the main cover-sections 6 so that as will be seen the cover is flexible at the point where the hinge 5 occurs and is provided at this point with a series of clasps 7, in this instance three in number for each cover.

Secured to the surrounding flange 2 of the

box-like back is a metal or other diaphragm or plate 8, the same being secured in position, in this instance, by means of screws 9 passed through perforations in the plate and taking into the bottom 1 of the back. Bearing-openings 10 are at intervals provided in the base 1 of the box-like back adjacent to the side flanges or walls 2, and immediately above the same in the diaphragm or plate 8 corresponding bearing-openings 11 are formed. The openings 10 and 11 are arranged in transversely opposite pairs at each side of the back and plate, and in each of the bearing-openings 10 and 11 stout wire-shafts 12 are located and journaled.

In the bottom of the back and the diaphragm or plate 8 each of these wire-shafts is provided with an inwardly-disposed crank-portion or arm 13, and after extending above their upper bearings 11, the said shafts are inwardly-disposed forming the piercing-branches 14. These piercing-branches have their inner ends beveled so that they meet and form a smooth joint 15 directly over the center of the diaphragm or plate 8 while at the same time it will be obvious that the shafts may be partially rotated or swung away from each other. The entire series of wire-shafts, which in this instance are three at each side, are connected by means of wire connecting-rods 16, which at the points of connection with the wire-shafts are coiled to form eyes 17 that loosely engage with the cranked portions or arms 13 thereof, so that any movement upon the part of one of the wire-shafts is communicated to the remaining shafts of the series, a stop-pin 13^a preventing the wire-shafts from swinging in but one direction. A pair of flat-springs 18 are secured by screws 19 or otherwise to the bottom one of the back, the said springs having their resilient ends disposed in reverse directions, and each spring lying against one of the cranked portions of a shaft 12 of a series, the said springs being inclined or disposed obliquely to the longitudinal center of the back, whereby they exert their tendency or force in reverse directions, and when the wire-shafts are swung inward their beveled points are pressed against each other, whereby they are maintained in contact and form practically continuations of each other across the diaphragm or plate 8. It will be

seen that by swinging any one of the wire-shafts of a series to one side that the spring will yield to such movement, the cranked portion of said shaft riding over the free or resilient end of the spring, and after the same has passed beyond a point at a direct right-angle to the spring said spring exerts a tendency in the opposite direction so that the wire-shaft is locked, as it were, in an open position.

It will be understood that the tariff-sheets are provided with holes along their inner edges which agree with the number of wire-shafts, or such holes may be produced by puncture from the beveled ends of the shafts when the sheets are introduced thereover. In introducing the sheets one set of shafts is turned so as to be thrown out of alignment with the remaining set or series and the sheets introduced either in a series or singly as may be desired. After a sufficient quantity of sheets has been placed in position the opposite shafts are returned to their former position as shown in Fig. 1. If at any time it is desired to remove any one sheet or a series of sheets and either replace the same by new sheets or not as may be desired, it is simply necessary to move the series of sheets at one side thereof of those to be removed over upon either one of the series of wire-shafts, swing the opposite series to one side and take the sheet from its position. The clasps 7, it will be seen, being located upon the outer edges of the back-sections 4, are, when said sections are elevated about opposite the points at which the wire-shafts are bent to form the piercing-branches 14, and said clasps therefore are adapted to removably engage with said wire-shafts at these points so that when the book is complete or the leaves in position, the hinges 5 are really the main hinges upon which the covers 6 swing. Of course in order to accomplish any removal or insertion of the sheets it is necessary that the clasps 7 be removed from engagement with the wire-shafts, which may be readily accomplished by exerting a little force as will be obvious from an inspection of the construction of the clasps.

From the foregoing description in connection with the accompanying drawings it will be seen that we have provided a very simple and durable as well as convenient device constructed upon the principle of the well known temporary-binder and adapted to serve as such for the preservation and holding of passenger and freight tariff-sheets.

Various changes in the details of the invention may suggest themselves during the manufacture and use of the invention, and we therefore do not limit our invention to such precise details as we have herein illustrated and described, but hold that we may vary the same within the scope of mechanical skill without departing from the spirit or sacrificing any of the advantages of the invention. For instance, the device may be placed on a support or base and serve as an ordinary file without the use of a cover.

Having described our invention, what we claim is—

1. In a temporary-binder, a back and opposite hinged covers, in combination with pairs of opposite independent vertical swiveled wire-shafts having their upper ends inwardly and horizontally bent and beveled to form joints, and near their lower ends provided with horizontally disposed cranked portions or arms, connecting-rods loosely connecting the cranked portions of each series of shafts, and springs for normally closing the upper ends of the pairs of opposite shafts, substantially as specified.

2. In a temporary-binder, the combination with the back, of the opposite series of wire-shafts journaled therein and having their upper ends inwardly-disposed and overlapped and near their lower ends provided with cranked portions, the springs bearing on the cranked portion of a shaft of each series, connecting-rods between the shafts of the series, hinged cover-sections at the sides of the back, clasps thereon, and main cover-sections hinged to said cover-sections beyond the clasp, substantially as specified.

3. In a temporary-binder, the combination with the oblong back having the surrounding wall or flange, the hinged covers at the sides of the flange, and the diaphragm or plate arranged over said side-walls or flanges and secured to the back, opposite bearings formed in the diaphragm or plate and bottom of the cover, wire-shafts journaled in the bearings and having their upper ends inwardly bent, beveled and meeting, and near their lower ends provided between the diaphragm and bottom of the back with cranked portions, connecting-rods between said cranked portions, and flat springs obliquely and oppositely-disposed and secured to the bottom of the back and bearing against the cranked portion of a shaft of each series, substantially as specified.

4. The support or base, and the series of independent vertical wire shafts journaled therein at each side of the support or base and adapted to swing laterally, and having their upper ends inwardly and horizontally disposed and overlapping, and horizontal cranks formed near the lower ends of the shafts, in combination with the connecting rods arranged on each side and connecting each series of shafts independently, so that the series on one side work independently of the series on the other side, and yet each series will work in unison, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

FRANK D. HASTINGS.
OSCAR N. DURAND.

Witnesses:

JAMES MCAVINS,
JOHN SALADIN.